THE ELECTRICAL TREATMENT OF CERTAIN PHASES OF NEURASTHENIA.

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THE object of this article is to direct the attention to those peculiar phases of neurasthenia in which the mind is mainly affected, the physical condition remaining comparatively unaffected, or what is known as cerebral neurasthenia. It is characterized by the well-known morbid fears, about which so much has been written, and the severer cases are very apt to show a deep despondency and hopelessness, which renders their condition most pitiable. Another cause of acute mental suffering is the terrible mental activity they display. This is not by any means a healthy activity, but a morbid, unnatural process in which the morbid fears of all kinds play an important part. Sometimes they take a definite form, as fear of committing suicide or homocide, or, most frequent of all, fear of going insane. At other times it is simply a vague apprehension, the so-called fear of fears, or fear of everything, but which is often too indefinite to admit of any such definition. The patient will say "I cannot tell what it is like; but oh! it is fearful."

In addition to the purely mental symptoms, headache or dizziness is almost always present, or we may have both together.

As to the nature of this disease, the main cause of the whole trouble is, in the writer's opinion, a condition of depression; and therefore the main indication for treatment is to stimulate and tone up the weakened nerves so that the proper balance between the will, judgment, and imagination is restored.

In this disease the imagination seems to run riot and to be entirely beyond the control of the will. In ordinary conditions of health this might be of little moment, either one way or the other. In this affection, however, the morbid fancies are always the reverse of agreeable, and from an annoyance they soon become a perfect torment, from which there seems no escape. This condition of things, if not relieved, is almost sure to run into insanity. It is, therefore, all the more worthy of careful attention and treatment on the part of the physician, since he who cures such a case may feel quite confident of having saved his patient from this terrible malady.

The treatment of this affection comprises many things beside electricity, and the writer does not mean to imply that it is the only means to be employed.

It may be looked upon as the principal agent in the treatment, however, on account of its wonderful tonic action, which meets the main indication in the disease.

Just here attention may be called to a principle of electric treatment of great importance in the treatment of this affection. It is what may be called the dual action of electricity.

Every current that passes through any portion of the human body has two actions: first, the local action upon the nerves or muscles lying immediately beneath the point where it enters; and secondly, a general or systemic action upon the system at large.

This secondary or systemic action is of great importance in the treatment of this disease.

It depends principally upon the separation of the two electrodes. Thus, if two electrodes were placed close together upon the abdomen, there would be very little diffusion of the current, which would pass directly from one pole to the other beneath the skin, and consequently the systemic action would be comparatively slight. If now one of the electrodes be moved to the back so that the current has the whole thickness of the body to traverse, there will be a much wider diffusion of the current in every direction and the systemic action will be much greater.

We have three forms of electricity at our disposal:

the galvanic, the faradic, and the static; and for our purpose we may almost leave the static out of account. The only way in which this form is of value here is that of general faradization. In order to do this properly, the patient must be entirely undressed, which makes the treatment extremely inconvenient for office application, and moreover, in the writer's opinion, the benefits of this form may be obtained just as well, and very much more agreeably, by means of the static form.

We have left the two remaining forms, galvanic and static, of which it may be said that they are both of undoubted value in the treatment of this affection.

When a patient presents himself suffering from mental neurasthenia, and who has never taken electricity, so that there are no indications to act as a guide, I always begin with the static charge, giving it for five minutes daily.

It is often very desirable to treat these patients every day. First, because they need the daily stimulus of the electricity, and also because in this depressed, nervous condition the frequent advice and counsel of the physician is just what they require. Patients whose nerves are greatly depressed are very apt to be in a condition of more or less profound despair, and they look upon their physician as their only hope.

They are so beset with all kinds of unpleasant ideas, morbid fears and apprehensions, that it is often of the greatest value to them to be able every day to carry it all to their medical adviser and to throw it, so to speak, on his shoulders.

This form of treatment may be kept up for a month and then should be intermitted for two weeks. During this time remedies may be given, or in certain cases they may go without treatment of any kind. At the end of the period of two weeks the same treatment may be resumed and kept up for a month more, in case the patient makes satisfactory improvement. By this time many mild cases will be cured, and the treatment may, therefore, be stopped altogether. If the case seems to be improving, but at a very slow rate, static sparks may be given along the spine, beginning with a mild wooden electrode, and if that is well borne, passing on to the severer ones.

We now come to two contra-indications for the static form. First, cases which seem to be absolutely unaffected by this agent. These cases are occasionally met with where the static form of electricity, either as a charge or as sparks, seems to have not the slightest effect on the course of the disease.

As soon as the physician becomes convinced that the patient is not affected by this form of electricity, he should immediately give it up and supply its place by galvanism.

There are certain rare cases where static electricity seems to have a very unpleasant action, causing dizziness, headache, and nausea. Such cases are extremely rare, but they do sometimes occur, and when the physician meets with one, the only thing to do is to drop the use of the static form immediately and use galvanism in its place.

Galvanism.—Although the seat of most of the symptoms is in the head in this class of cases, I think it is better as a rule not to apply galvanism directly to this member, for the reason that it is so excessively sensitive that vertigo and headache are very apt to result. If this occurs it only retards the cure and discourages the patient. Even spinal galvanism applied in the ordinary way, with one pole at the back of the neck and the other at the small of the back, will sometimes produce this same result. It is a good rule, therefore, to begin the galvanic treatment with a simple bimanual treatment—an electrode in each hand. In this way there is secured a wide diffusion of the current with very little irritation. This treatment may begin with a dose of 5 milliampères and increase gradually to 10 for the constant current. If the interrupted is used, the dose should be a little smaller. If the bimanual treatment be well borne, after five or six applications, it should be changed for the spinal application.

If the ordinary method of spinal galvanism be found to cause too much irritation, then the following method, which I have called transverse galvanization, should be employed:

Two oblong electrodes are used, being placed on either side of the spine in the lumbar region. In successive treatments these are moved up higher and higher, until finally they rest in the hollows formed between the shoulder-blades. If they do not apply well here, they may be kept just below these bones, where the rounded form of the body gives good, firm contact.

I have found this to be one of the most useful forms in which to apply galvanism in this affection, and therefore use it more than any other.

Of the three ways in which galvanism may be applied —the constant current, the interrupted current, and voltaic alternation—the interrupted current is probably the most valuable in this connection.

Voltaic alternation gives too powerful a shock, and is therefore too much of an irritant to be used.

Whatever form of application is used, it is well to begin with the constant or least irritating form, and, after a short time, to pass on to the use of the interrupted current. In order to use this current properly, it is absolutely necessary to have connected with the battery an apparatus for automatically making and breaking the current, as it is impossible to perform this by means of the hands alone.

The length of time required to cure these cases is extremely variable, so much so that it is almost impossible to lay down a general rule.

As already stated, mild cases of acute neurasthenia of the mental type are frequently cured in the period of ten weeks—that is, a month of treatment, then two weeks' intermission, followed by a second month of treatment.

On the other hand, when the disease is met with in persons of middle age, who have suffered with it all through their adult life, two or three years may be required to produce a complete cure.

It is on this account that great circumspection must be used in answering the question which patients always ask at the outset of the treatment: "Doctor, how long will it take?" Instead of fixing a definite date, it is much better to say a few words as to the great uncertainty of this affection, and tell them, what is no more than the truth, that the length of time required for a cure will depend upon the rate of progress made.

Recent cases that can be traced to some single cause which is no longer acting, generally make rapid improvement under the treatment, and a speedy recovery may be safely promised.

Old cases, however, that have nothing to build on, and where a condition of nervous bankruptcy exists, do not respond nearly as well to the electric stimulus, and therefore require much longer to cure.

ASSOCIATION OF TABES AND PARALYSIS AGITANS.

The "Revue générale de médecine, de chirurgie et d'obstétrique," August 24, 1892, quoting from a German periodical, refers to Placzek's report of a case in which tabes and paralysis agitans were associated, in a man of fifty-two, with the following history: Soft chancre at the age of twenty; lightning pains in the calves for the first time at forty-two; impotence, dyplopia, softening of the gums to such an extent that teeth could readily be removed with the fingers; at forty-five, characteristic tremor of paralysis agitans, rhythmic oscillations beginning in the feet and rising to the arms, together with the characteristic expression and gait of Parkinson's disease. The symptoms of tabes were as follows: Argyll Robertson pupil, Romberg's symptom, impotence, lightning pains, shedding of the teeth, incontinence of urine, abolition of knee-jerk (no ataxia), slight loss of memory, and great excitability. Heimann (Berlin, 1888) has also published a case of paralysis agitans with tabetic symptoms. L. F. B.